TED(21)1005B & TED(21)1005A

TED (21) 1005B
(Revision-2021)

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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, NOVEMBER - 2025

ENGINEERING GRAPHICS

[Maximum marks: 75]

[Time: 3 Hours]

[Note:- 1. A2 size drawing sheet to be supplied.
2. Missing data if any suitably assumed.
3. Sketches are accompanied.
4. All drawing should be in first angle projections.]

PART A
(Maximum Marks: 5)
I. Answer all the following questions in one word or sentence or sketch. Each question carries 1 mark**.**

(5 x 1 = 5 Marks)

		Module outcome	Cognitive level
1	Write the names of any four drawing instruments used in engineering drawing.	M1.02	U
2	Eccentricity in case of a parabola is……………	M1.04	U
3	Define plane of projection.	M2.01	U
4	Identify the quadrant when a point is below HP and behind VP.	M2.02	U
5	Write any two commands used in AUTO CAD.	M4.04	A

PART B
(Maximum Marks: 40)
II. Answer any five of the following questions. Each question carries 8 marks.

(5 x 8 = 40 Marks)

		Module outcome	Cognitive level
1	Draw a regular pentagon of side 30mm.	M1.04	U
2	Draw an Ellipse by concentric circle method, major axis is 100 mm and minor axis is 60 mm.	M1.04	U
3	Draw a Parabola of base 90 mm and axis 60 mm using tangent method.	M1.04	U

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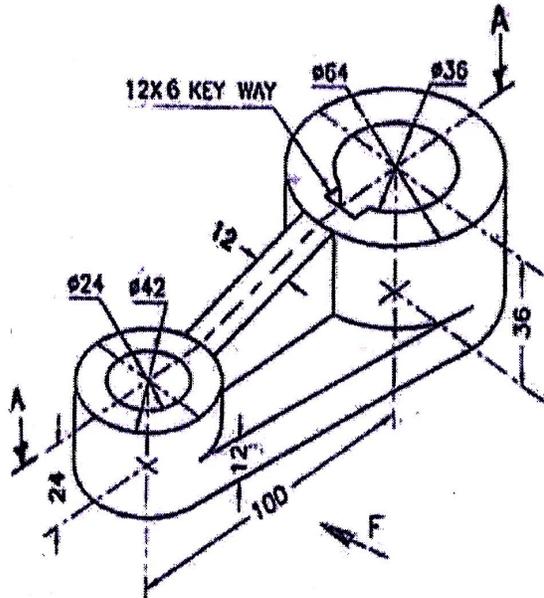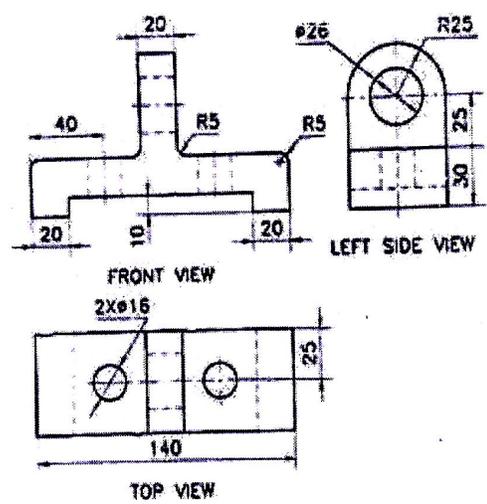| 4	Draw an involute of a circle 50 mm in diameter.	M1.04	U
5	Draw the projections of the following points on a common reference line. a. Point A is 25 mm above H.P. and 35 mm in front of V.P. b. Point B is 15 mm above H.P. and 20 mm behind V.P. c. Point C is 25 mm below H.P. and 30 mm behind V.P. d. Point D is in H.P. and 20 mm in front of V.P.	M2.02	U
6	Draw the projections of a line AB 80 mm long inclined at 30 degrees to H.P. and parallel to V.P. and 20 mm above H.P. and 40 mm in front of V.P.	M2.03	A
7	The length of the top view of a line parallel to V.P. and inclined at 45^0 to H.P. is 50 mm. One end of the line is 12 mm above H.P and 25 mm in front of V.P. Draw the projections of the line and determines its true length.	M2.03	A

PART C
(Maximum Marks: 30)
III. **Answer any two of the following questions. Each question carries 15 marks**

(2 x 15 = 30 Marks)

		Module outcome	Cognitive level
1.	Isometric view is shown in figure 1. Draw the front view in the direction of the arrow F and top view. Figure 1	M3.01	U

2.	Figure shows pictorial views of an object. Draw the following views: (i) Full sectional front view in the direction of the arrow F. (ii) Top view. 	M3.02	A
3.	Orthographic views of an object are shown in figure. Draw the isometric view of the object. Figure	M4.01	A

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ENGINEERING GRAPHICS

[Maximum Marks: **75**]   [Time: **3** Hours]

[*Note:*   *1. A2 size drawing sheet to be supplied.*
         2. Missing data if any, suitably assumed.
         3. Sketches are accompanied.
         4. All dimensions as per BIS.
         5. All drawings should be in first angle projections.]

PART-A

I. Answer *all* the following questions in one word or one sentence or sketch. Each question Carries *'one'* mark.

(5 x 1 = 5 Marks)

		Module Outcome	Cognitive level
1.	Name any two type of lines used in general engineering drawing.	M1.02	U
2.	Write any two drawing sheet size.	M1.02	U
3.	Define the term projector.	M2.01	U
4.	Define first angle projection.	M3.01	R
5.	Name any two options for drawing an Arc in Autocad.	M4.04	R

PART-B

II. Answer any *five* questions from the following. Each question carries *'eight'* marks.

(5 x 8 = 40 Marks)

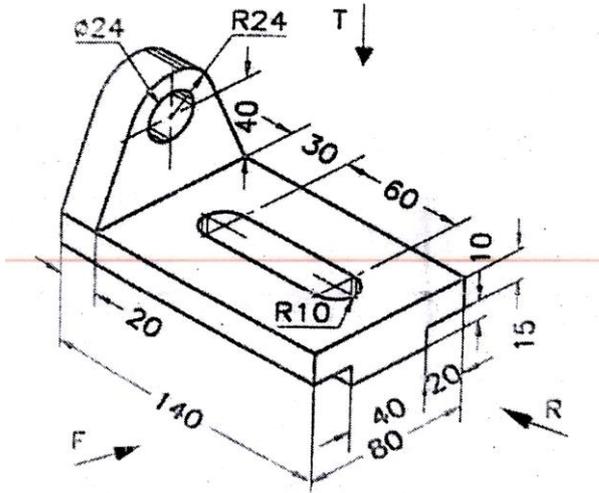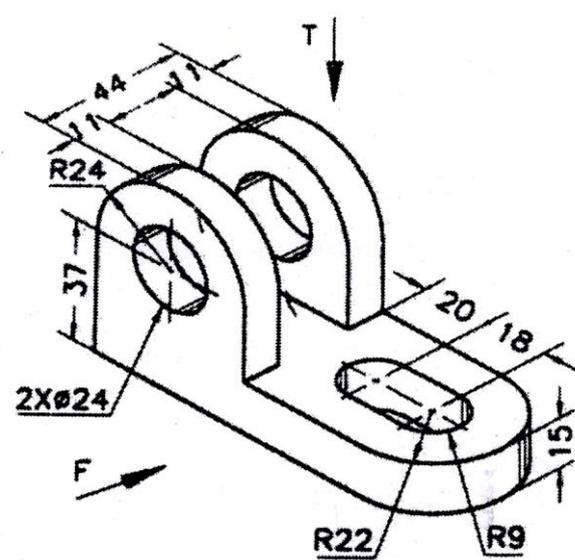|		Module Outcome	Cognitive level
1.	Construct a regular octagon of side 40 mm.	M1.04	U
2.	Draw an ellipse by concentric circle method. Given the major and minor axes as 100 mm and 60 mm respectively.	M1.04	U
3.	Draw a parabola when the vertex located 20 mm from its directrix.	M1.04	U
4.	Draw an involute of a square of 20 mm side	M1.04	U
5.	Draw the projections of the following points on a common reference line. Keeping the distance between the projections as 30mm. • Point P, 33 mm above HP and 30 mm in front of VP. • Point Q 24 mm below HP and 30 mm behind VP. • Point R in HP and 32 mm behind VP.	M2.02	U
6.	A line AB 65 mm long is 45° to VP and parallel to HP. Its one end on HP and 25 mm in front of VP. Draw its projection.	M2.03	A

7.	Top view of 75 mm long line measures 55 mm. its one end 10 mm above HP and 20 mm in front of VP. Draw the projection of line and find the inclination with reference line.	M2.03	A

PART-C
Answer any two questions from the following. Each question carries *'fifteen'* marks

(2 x 15 = 30 Marks)

Module Outcome Cognitive level

III.	Draw the Front view in the direction of F, Top view of the given figure.	M3.01	A
IV.	Isometric view of a shaft bearing in figure. Draw the Front view in the direction of F, Right side view.	M3.01	A
	 (i) ISOMETRIC VIEW		

V.	Draw the isometric view.	M4.02	A

15

20

70

ORTHOGRAPHIC

15

70

50

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